1)**Mr. Coleman, has EPA evaluated all of the superfund sites in Region 6?** ***[If not, when do you anticipate that will be completed? If so, what were the results of the evaluations?]***

a) Other than the San Jacinto Waste Pits, did any other superfund sites require follow up?

No. All 43 Superfund NPL sites in the hurricane affected area have been assessed. Of these, 42 sites have been cleared. Post-hurricane Superfund site summaries based on quality-assured data have been published on www.epa.gov/hurricane-harvey.

2)***Mr. Coleman, we have heard a lot about the San Jacinto Waste Pits superfund site in your region with the most troubling being reports of the cap being damaged and dioxin levels as high as 70,000 parts per billion when the cleanup level is only 30 parts per billion. What can you tell us about the status of elevated levels of dioxin?***

a) I believe that EPA was requiring the potentially responsible parties to do additional sampling in the area around the site to determine the extent of the problem from the damage to the cap – what the result of that sampling?

EPA directed the potentially responsible parties to conduct sampling in areas that were selected to show if the exposed waste materials migrated beyond the area of the damaged cover. The sampling results in the selected sediment locations showed dioxin levels consistent with the pre-storm levels, indicating that the exposed area of elevated dioxin levels did not cause recontamination of the surrounding sediment.

b) I know that EPA signed the Record of Decision (ROD) in mid-October and I believe that the remedy selected was removal of the contamination- is that correct?

Yes. The ROD selected excavation and removal of over 200,000 cubic yards of dioxin contaminated wastes followed by off-site disposal.

i. Are the potentially responsible parties on board with the ROD and with conducting any immediate repairs necessary on the cap?

The potentially responsible parties submitted significant comments in support of an enhanced cap, and raised several concerns with the alternative of excavation and off-site disposal, which was the final remedy selected by EPA in the Record of Decision. EPA provided extensive responses in the ROD to the comments raised by the potentially responsible parties during the comment period.

The potentially responsible parties did conduct the immediate repairs necessary on the cap following impacts from Hurricane Harvey as required by the maintenance plan for the Site and other additional criteria as required by EPA.

3)Has Region 6 had to deal with orphan containers like drums, tanks, canisters, cylinders and similar containers displaced by the hurricane found floating in or washed up near waterways because of the flooding?

US EPA, US Coast Guard, Texas Commission on Environmental Quality, and Texas General Land Office formed a Unified Command in response to Hurricane Harvey. The Unified Command completed hazmat reconnaissance and recovery activities associated with hurricane impacts. Orphan containers, including drums, tanks, canisters, cylinders and similar hazmat containers found floating in or washed up near waterways were assessed, collected, sorted and grouped by type prior to shipping them offsite for proper treatment and disposal. The Unified Command collected over 1,088 orphan containers and responded to approximately 266 reported spills or discharges. As part of Unified Command, USCG and the Texas General Land Office addressed and completed the marine operations to recover abandoned vessels (boats).

4) Mr. Coleman, your written testimony describes the Airborne Spectral Photometric Environmental Collection Technology – the ASPECT aircraft. It sounds like the ASPECT aircraft could ascertain whether here was any danger from the Arkema plant which had an explosion in the aftermath of the flooding and was able to assess and damage to and environmental issues with miles of pipelines, 134 Risk Management Plan facilities, 456 drinking water plants, and 105 wastewater plants. Is the ASPECT aircraft owned by EPA?

No, the aircraft is owned by Airborne ASPECT Inc.; the monitoring equipment onboard the aircraft is government-owned, contractor-operated. Though the ASPECT aircraft is stationed in Dallas, Texas, it is a national asset and is available to other Regions. It has been used in other responses and environmental assessment activities throughout the country. (See attached fact sheet for additional information.)

5) Did Region 6 conduct air quality assessments in the impacted areas?

- ***a) if so, when and how many?***
- ***b) What have the results of those assessment been, generally?***

The EPA completed air quality monitoring using their Trace Atmospheric Gas Analyzer, ASPECT and handheld instruments. The TAGA conducted monitoring in Houston (September 5-7 and 10-12), Deer Park (September 14), Baytown (September 15), Sweeny and Texas City (September 17), Beaumont, Port Arthur, Victoria, and Point Comfort (September 18), and Corpus Christi (September 19-20). The results from continuous air monitors, hand-held instruments, ASPECT and TAGA indicated no levels of immediate health concern.

TAGA data summary reports for September 5-7 and 10-13 are available under the 'documents' section of EPA Hurricane Harvey 2017 website- response.epa.gov/hurricaneharvey2017. Two TAGA mobile air monitoring buses began monitoring air quality around additional industrial sources in Texas. Additional TAGA reports for September 14, 15, 17-20 are available under 'documents' section of this website.

EPA also sent its aerial surveillance aircraft to conduct a screening level assessment to evaluate unreported or undetected releases from facilities with Risk Management and/or Response Plans within the hurricane impacted areas. EPA's plane instrumentation measured 13 chemicals. The Airborne Spectral Photometric Environmental Collection Technology aircraft found no exceedances of the Texas comparison values. The screening level results from ASPECT were compared to the ASPECT list of the TCEQ's short-term Air Monitoring Comparison Values and found no exceedances of the short-term AMCVs. A report which summarizes the flights dated from September 4-11, 2017 is included on the website at response.epa.gov/hurricaneharvey2017.

ASPECT Sept 11 Flight 2 report
ASPECT Sept 11 Flight 1 report
ASPECT Sept 10 Flight 2 report
ASPECT Sept 10 Flight 1 report
ASPECT Sept 9 Flight 2 report
ASPECT Sept 9 Flight 1 report
ASPECT Sept 8 Flight 2 report
ASPECT Sept 8 Flight 1 report
ASPECT Sept 7 Flight 2 report
ASPECT Sept 7 Flight 1 report
ASPECT Sept 6 Flight 2 report
ASPECT Sept 6 Flight 1 report
ASPECT Sept 5 Flight 1 report
ASPECT Sept 4 Flight 2 report
ASPECT Sept 4 Flight 1 report

6***) Mr. Coleman, your written testimony mentions that EPA deployed the Trace Atmospheric Gas Analyzer which is a mobile air pollution detection vehicle that can provide air quality results quickly by collecting constant, real-time data for outdoor air quality. Is EPA concerned about whether the samples taken by the mobile air pollution detection vehicle are accurate and/or exemplary of air quality conditions throughout the regions?***

The TAGA provides accurate, real-time air monitoring data for the immediate location in which the monitoring is conducted. The instruments are calibrated using laboratory-grade standards and methodologies.

TAGA laboratories have supported the Agency on numerous and varied responses, projects, developments, preparedness activities and deployments.

- *Emergency Responses:* the Paulsboro train derailment, Deepwater Horizon oil spill, Hart Senate Office Building anthrax fumigation, World Trade Center response.
- *Vapor Intrusion Studies and Advancement in the Field:* started in 1987 with the Love Canal Habitability Study. The Mass Spectrometer/ Mass Spectrometer system can identify contributions associated with vapor intrusion from contaminated groundwater or soil as well as isolate impacts from confounding sources such as lifestyle materials, outdoor ambient air contributions and accidental or intentional releases.
- *Urban Air Toxics Program Studies:* initiated to reduce public exposure to hazardous pollutants. TAGA laboratories provided analytical support in the Baton Rouge (Louisiana), Port Arthur (Texas), and Houston Ship Channel areas.
- *Fumigation Remediation Activities:* building decontamination of weaponized anthrax at the Hart Senate Office Building, Brentwood and Hamilton Post Offices, Operation Lemon Drop, and the former AMI facility. TAGA monitored outdoor ambient air to ensure that public health was not impacted.
- *Chemical Warfare Agent (CWA) Monitoring Preparedness during a Release:* the technology was evaluated. It monitored CWAs in parts per trillion by volume (pptv) levels or lower during testing at the U.S. Army's Edgewood Chemical and Biological Center in Maryland.
- *Engineering Support:* analytical information provided to optimize operating parameters for remediation operations.
- *Pre-deployment and Planning during Events of National Consequence:* TAGA laboratories used as operational units on many occasions as assets.